

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,243,290 B2  
APPLICATION NO. : 10/616958  
DATED : July 10, 2007  
INVENTOR(S) : Keith R. Slavin

Page 1 of 7

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Specification, the following errors are corrected:

Column 1, line 62, "it" should read --its--;

Column 5, line 36, "used then" should read --used, then--;

Column 5, lines 45-49:

"1 0 1 1 1 0 1 1 8-bit comparand

1 0 1 1 1 0 1 1 obtained by shifting the above word right 1 bit

1 1 1 0 0 1 1 0 1 9-bit column-wise "XOR-WOR" result when 2 bits are in column"

Should read

--1 0 1 1 1 0 1 1 8-bit comparand

1 0 1 1 1 0 1 1 obtained by shifting the above word right 1 bit

1 1 1 0 0 1 1 0 1 9-bit column-wise "XOR-WOR" result when 2 bits are in column--;

Column 6, lines 15-20:

"1 0 1 1 1 0 1 1 1 1

1 0 1 1 1 0 1 1 1 1 shift upper word right 1 bit to get lower word

1 1 1 0 0 1 1 0 0 0 1 11-bit column-wise "XOR-WOR" result when 2 bits in column"

Should read

--1 0 1 1 1 0 1 1 1 1

1 0 1 1 1 0 1 1 1 1 shift upper word right 1 bit to get lower word

1 1 1 0 0 1 1 0 0 0 1 11-bit column-wise "XOR-WOR" result when 2 bits in column--;

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8, lines 62-66:

**“1 0 1 1 1 0 1 1                      (1) 8-bit incoming CAM word**

1 0 1 1 1 0 1 1            (2) obtained by shifting above word right 1 bit

1 1 1 0 0 1 1 0 1 0 0 0 0 (3) 13-bit encoded CAM word: column-wise XOR-WOR of  
(1) and (2), 0-padded"

Should read

-1 0 1 1 1 0 1 1                      (1) 8-bit incoming CAM word

1 0 1 1 1 0 1 1                      (2) obtained by shifting above word right 1 bit

1 1 1 0 0 1 1 0 1 0 0 0 0      (3) 13-bit encoded CAM word: column-wise XOR-WOR of  
(1) and (2), 0-padded--;

Column 9, lines 14-21:

"1 0 1 1 1 0 1 1 1 1 0 0      (4) 12 bit comparand, top 8 prefix matches (1)

1 1 1 1 1 1 1 0 0 0 0      (5) "AND" mask for 8-bit prefix (top 8 bits enabled)

1 0 1 1 1 0 1 1 0 0 0 0      (6) column-wise “AND” of (4) and (5)

1 0 1 1 1 0 1 1 0 0 0 0      (7) is (6) shifted right by 1 bit

1 1 1 0 0 1 1 0 1 0 0 0 0 (8) column-wise “XOR-WOR” of (6) and (7)

1 1 1 0 0 1 1 0 1 0 0 0 0 (3) 13-bit match word in CAM storage location”

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9, lines 14-21 (cont'd):

Should read

--1 0 1 1 1 0 1 1 1 1 0 0      (4) 12 bit comparand, top 8 prefix matches (1)  
1 1 1 1 1 1 1 1 0 0 0 0      (5) "AND" mask for 8-bit prefix (top 8 bits enabled)  
1 0 1 1 1 0 1 1 0 0 0 0      (6) column-wise "AND" of (4) and (5)  
1 0 1 1 1 0 1 1 0 0 0 0      (7) is (6) shifted right by 1 bit  
1 1 1 0 0 1 1 0 1 0 0 0 0      (8) column-wise "XOR-WOR" of (6) and (7)  
1 1 1 0 0 1 1 0 1 0 0 0 0      (3) 13-bit match word in CAM storage location--;

Column 9, lines 37-45:

"1 0 1 1 0 0 1 1 1 1 0 0      (9) 12 bit comparand  
1 1 1 1 1 1 1 1 0 0 0 0      (10) "AND" mask for 8-bit prefix (top 8 bits enabled)  
1 0 1 1 0 0 1 1 0 0 0 0      (11) column-wise "AND" of (9) and (10)  
1 0 1 1 0 0 1 1 0 0 0 0      (12) is (11) shifted right by 1 bit  
1 1 1 0 1 0 1 0 1 0 0 0 0      (13) column-wise "XOR-WOR" of (11) and (12)  
1 1 1 0 0 1 1 0 1 0 0 0 0      (3) 13-bit encoded CAM word stored in a CAM storage  
location  
0 0 0 0 1 1 0 0 0 0 0 0 0      (14) mismatched bits between (13) and (3)"

Should read

--1 0 1 1 0 0 1 1 1 1 0 0      (9) 12 bit comparand  
1 1 1 1 1 1 1 1 0 0 0 0      (10) "AND" mask for 8-bit prefix (top 8 bits enabled)  
1 0 1 1 0 0 1 1 0 0 0 0      (11) column-wise "AND" of (9) and (10)

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9, lines 37-45 (cont'd):

1 0 1 1 0 0 1 1 0 0 0 0 (12) is (11) shifted right by 1 bit  
1 1 1 0 1 0 1 0 1 0 0 0 0 (13) column-wise "XOR-WOR" of (11) and (12)  
1 1 1 0 0 1 1 0 1 0 0 0 0 (3) 13-bit encoded CAM word stored in a CAM storage location  
0 0 0 0 1 1 0 0 0 0 0 0 0 (14) mismatched bits between (13) and (3)--;

Column 9, lines 59-64:

"1 0 1 1 1 0 1 1 (1) 8-bit Incoming TCAM word  
1 0 1 1 1 0 1 1 (2) obtained by shifting above word right 1 bit  
1 1 1 0 0 1 1 0 1 X X X X (3) 13-bit encoded TCAM word: column-wise "XOR-WOR" of (1) and (2), X padded"

Should read

--1 0 1 1 1 0 1 1 (1) 8-bit incoming TCAM word  
1 0 1 1 1 0 1 1 (2) obtained by shifting above word right 1 bit  
1 1 1 0 0 1 1 0 1 X X X X (3) 13-bit encoded TCAM word: column-wise "XOR-WOR" of (1) and (2), X padded--;

Column 10, lines 8-15:

"1 0 1 1 1 0 1 1 1 1 0 0 (4) 12 bit comparand, top 8 prefix matches (1)  
1 1 1 1 1 1 1 1 0 1 1 1 (5) single bit "AND" mask for 8 bit prefix  
1 0 1 1 1 0 1 1 0 1 0 0 (6) column-wise "AND" of (4) and (5)  
1 0 1 1 1 0 1 1 0 1 0 0 (7) is (6) shifted right by 1 bit  
1 1 1 0 0 1 1 0 1 1 1 0 0 (8) column-wise "XOR-WOR" of (6) and (7)

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Column 10, lines 8-15 (cont'd):

1 1 1 0 0 1 1 0 1 X X X X (3) 13-bit encoded TCAM word (padded)”

Should read

--1 0 1 1 1 0 1 1 1 1 0 0 (4) 12 bit comparand, top 8 prefix matches (1)

1 1 1 1 1 1 1 1 0 1 1 1 (5) single bit “AND” mask for 8 bit prefix

1 0 1 1 1 0 1 1 0 1 0 0 (6) column-wise “AND” of (4) and (5)

1 0 1 1 1 0 1 1 0 1 0 0 (7) is (6) shifted right by 1 bit

1 1 1 0 0 1 1 0 1 1 1 0 0 (8) column-wise “XOR-WOR” of (6) and (7)

1 1 1 0 0 1 1 0 1 X X X X (3) 13-bit encoded TCAM word (padded)--; and

Column 10, lines 27-35:

“1 0 1 1 0 0 1 1 1 1 0 0 (9) 12 bit comparand 1 bit different to (4)

1 1 1 1 1 1 1 1 0 1 1 1 (10) single bit “AND” mask for 8-bit prefix

1 0 1 1 0 0 1 1 0 1 0 0 (11) column-wise “AND” of (9) and (10)

1 0 1 1 0 0 1 1 0 1 0 0 (12) is (11) shifted right by 1 bit

1 1 1 0 1 0 1 0 1 1 1 0 0 (13) column-wise “XOR-WOR” of (11) and (12)

1 1 1 0 0 1 1 0 1 X X X X (3) 13-bit encoded TCAM word (padded)

0 0 0 0 1 1 0 0 0 0 0 0 0 (14) mismatched bits between (13) and (3)”

Should read

--1 0 1 1 0 0 1 1 1 1 0 0 (9) 12 bit comparand 1 bit different to (4)

1 1 1 1 1 1 1 1 0 1 1 1 (10) single bit “AND” mask for 8-bit prefix

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 10, lines 27-35 (cont'd):

1 0 1 1 0 0 1 1 0 1 0 0 (11) column-wise "AND" of (9) and (10)

1 0 1 1 0 0 1 1 0 1 0 0 (12) is (11) shifted right by 1 bit

1 1 1 0 1 0 1 0 1 1 1 0 0 (13) column-wise "XOR-WOR" of (11) and (12)

1 1 1 0 0 1 1 0 1 X X X X (3) 13-bit encoded TCAM word (padded)

0 0 0 0 1 1 0 0 0 0 0 0 0 (14) mismatched bits between (13) and (3)--.

Column 12, lines 47-48, "an miscellaneous" should read --a miscellaneous--;

Column 12, line 49, "an legacy" should read --a legacy--;

Column 12, line 50, "also coupled" should read --also be coupled--;

Column 12, line 60, "an local" should read --a local--;

Column 12, line 64, "an universal" should read --a universal--;

Column 12, line 65, "via to the" should read --via the--; and

Column 13, line 1, "to one additional" should read --to additional--.

In the Claims, the following errors are corrected:

Claim 15, column 14, line 54, "hierarchical of" should read --hierarchical--; and

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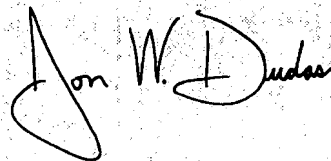
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims, the following errors are corrected (cont'd):

Claim 30, column 16, line 24, "encode" should read --encoded--.

Signed and Sealed this

Twenty-third Day of October, 2007

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large, looped initial "J" and a distinct "D".

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*